DATA SOURCES AS OF 1/12/2024

1. Archegos Bloomberg/EMSX trade data, SDNY_P022_0000000003 & SDNY_P022_0000000004. Only SDNY_P022_000000003 used so far.

2. Archegos EMSX order data:
- SEC-DOJ-EPROD-000255412
- SEC-DOJ-EPROD-000255413
- SEC-DOJ-EPROD-000255414
- SEC-DOJ-EPROD-000255415
- SEC-DOJ-EPROD-000255416
- SEC-DOJ-EPROD-000255417

3. Archegos trade blotter data:
- SEC-DOJ-EPROD-000000001

4. NASDAQ Tick Data
- Generally cancels, executions, and orders

5. NYSE Trade executions:
- Note: is being phased out in exchange for market-wide TAQ trade data

6. Market-wide TAQ trade data
- Trade executions for selected securities

7. CRSP Data
- Price, volume, return, and shares outstanding by ticker and for indices

8. TAQ NBBO data
- NBBO by ticker

9. Minute level pricing and volume to come from TAQ NBBO

DATA SOURCES EXPECTED TO BE USED BY KEY ANALYSES

1. VAR
- Archegos Bloomberg/EMSX Trade Data → for Archegos buy and sell volume
- TAQ NBBO Data → for price changes to calculate returns
- Market-wide TAQ Trade Data → for market-wide volume to calculate Archegos imbalance

2. Probit and Order Change Analysis
- Archegos Bloomberg/EMSX Trade Data → for Archegos order activity
- TAQ NBBO Data → for price changes to calculate returns and for determining buyer/seller initiation in the Market-wide TAQ trade data
- Market-wide TAQ trade data → for imbalance and volume

3. Midpoint Price Change
- Archegos Bloomberg/EMSX Trade Data → for Archegos trades
- NASDAQ Tick Data → for order book, midpoint changes, and price change

4. Implementation Shortfall
- Archegos Bloomberg/EMSX Trade Data → for Archegos order and fill information
- TAQ NBBO Data → for calculating time-of-order midpoints

5. Realized Spread
- Archegos Bloomberg/EMSX Trade Data → for Archegos fill information and identifying Archegos-initiated trades in the Market-wide TAQ trade data
- TAQ NBBO Data → for calculating midpoints over varying time horizons relative to each trade in the Market-wide TAQ trade data
- Market-wide TAQ trade data → for calculating realized spreads using the above inputs

6. Algorithm and Exchange Analysis
- Archegos Bloomberg/EMSX Trade Data → for Archegos trades and routing

7. Trade Summaries – Sizes and Aggressiveness
- Archegos Bloomberg/EMSX Trade Data → for Archegos trades and sizes
- TAQ NBBO Data → for NBBO and frequency of exceeding NBBO volume
- Market-wide TAQ trade data → for trade volume and frequency of other participants exceeding NBBO volume
- TBD (previously used): NASDAQ Tick Data → for more detailed analysis on NASDAQ tickers

8. Portfolio Summaries
- Trade Blotter → for Archegos summary metrics like shares held
- CRSP Shares Outstanding → for percentage of shares held
- CRSP Pricing Data → for index returns and stock returns
- TBD: foreign exchange rates

FIELDS CURRENTLY USED FROM SDNY_P022_0000000003

field	used
activity	Yes
status	Yes
type	Yes
receive_ts	Yes
asof_ts	Yes
order_create_ts	Yes
side	Yes
quantity	Yes
fill_quantity	Yes
fill_ts	Yes
filled_quantity	Yes
ticker	Yes
exchange	Yes
handling_instruction	Yes
order_type	Yes
tif	Yes
gtd_dt	No
execution_price	Yes
average_price	Yes
stop_price	Yes
limit_price	Yes
broker	Yes
executing_broker	Yes
order_id	Yes
route_id	Yes
fill_id	Yes
account	No
trader	No
action_by	No
investor_id	No
block_id	No
instruction	No
commission_type	No
commission_rate	No
commission_currency	No
product	No
settlement_dt	No
order_originator	No
liquidity	Yes
last_capacity	Yes
last_market	Yes
strategy_name	Yes

strategy_start_tm	No
strategy_end_tm	No
strategy_urgency	No
strategy_min_vol	No
strategy_max_vol	No
originator_lei	No
aggregation_flag	No
si_flag	No
mifid_ii_instruction	No
execution_lei	No
broker_si	No
trade_reporting_indicator	No
trade_reporting_mic	No
apa_flag	No
otc_flags	No
waiver_flags	No
price_currency	No
trader_name	No
account_note	No
client_order_id	No
prev_client_order_id	No